

H. HYDROLOGY AND WATER QUALITY

SETTING

The project involves the modification of existing natural gas lines and does not include discharges regulated by water quality standards or waste discharge permits. All modifications would occur within existing rights-of-way or roads in urban and highly developed areas. This would not involve the development of new rights-of-ways. Due to the nature of the work, it is unlikely that impacts would occur to water resources. Exceptions would be the exposure of soil during earthmoving activities, such as excavation of the manholes, and soil stockpiling where surface water could carry the sediment into nearby stormdrains.

REGULATIONS, APPROVALS, AND PERMITS APPLICABLE TO HYDROLOGY AND WATER QUALITY

FEDERAL

NPDES Permit

The individual RWQCBs administer the National Pollutant Discharge Elimination System (NPDES) stormwater permitting program throughout their regions in California. Construction activities of five acres or more are subject to the permitting requirements of the NPDES General Permit for Discharges of Stormwater Runoff Associated With Construction Activity (General Construction Permit). The project applicant must submit a Notice of Intent (NOI) to the SWRCB to be covered by the General Permit prior to the beginning of construction. The General Construction Permit requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must be prepared before construction begins. The plan would include specifications for best management practices (BMPs) that would be implemented during project construction to control potential discharge of pollutants from the construction area. Additionally, the plan would describe measures to prevent pollutants in runoff after construction is complete and reference a plan for inspection and maintenance of the project facilities. Implementation of the plan starts with the commencement of construction and continues through the completion of the project. Upon completion, the applicant must submit a Notice of Termination to the SWRCB.

Clean Water Act, Section 401 Certification

If wetlands or waterways were to be affected by the project, the RWQCB requires a Section 401 (Water Certification) Permit by meeting the terms and conditions in a Section 404 Nationwide Permit issued by the Army Corps of Engineers. Under the applicable Nationwide Permit the applicant must demonstrate that all work would be done within the permitter's window and that all BMP's (Best Management Practices) and erosion control methods were taken to prevent impacts to the waterways.

STATE

Water Quality Regulation

Regulatory authorities exist on both the state and federal levels for control of water quality in California. The U.S. Environmental Protection Agency (EPA) is the federal agency, governed by the Clean Water Act, responsible for water quality management. An EPA region is located in each County and delegates authority for water quality permitting to the State Water Resources Control Board (SWRCB).

The SWRCB, located in Sacramento, is the agency with jurisdiction over water quality issues in the State of California. The SWRCB is governed by the Porter-Cologne Water Quality Act (Division 7 of the California Water Code), which establishes the legal framework for water quality control activities by the SWRCB. Much of the implementation of the SWRCB's responsibilities is delegated to nine Regional Water Quality Control Boards.

The Porter-Cologne Quality Act finds and declares that activities and factors which may affect the quality of the waters of the state shall be regulated to attain the highest water quality which is reasonable, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible.

Regional Water Quality Board

Under the Porter-Cologne Quality Act, the SWRCB has the ultimate authority over state water rights and water quality policy. However, the Porter-Cologne Act also established nine RWQCBs to oversee water quality on a day-to-day basis at the local/regional level.

RWQCBs engage in a number of water quality functions in their respective regions. One of the most important functions is preparing and periodically updating basin plans (water quality control plans). Each basin plan establishes:

1. beneficial uses of water designated for each water body to be protected;
2. water quality standards, known as water quality objectives, for both surface water and groundwater; and
3. actions necessary to maintain these standards in order to control non-point and point sources of pollution to the state's waters.

Permits issued to control pollution must implement basin plan requirements (i.e., water quality standards) that take into consideration beneficial uses to be protected.

LOCAL AND SURFACE WATER RESOURCES

Surface waters potentially affected by the proposed project include creeks and drainages that flow throughout the 13 southern California counties in the project area, which may be near FIG installation locations. Major surface water drainages that occur within the project area include substantial creeks that drain the San Diego Hydrologic Region (SDHR) in a westerly direction toward the Pacific Ocean and the Colorado Hydrologic Region (CHR) in an easterly direction

toward the Colorado River. Additionally, the project area additionally includes numerous flood control channels and drainages that drain stormwater runoff from urban areas.

The hydrologic regions are composed of smaller watersheds, each defined by the natural terrain. While some of the watersheds are fully contained within southern California, others extend into Mexico to the south; Orange, Riverside, and San Bernardino Counties to the north; and Imperial County to the east.

IMPACTS AND MITIGATION MEASURES

<i>Issues (and Supporting Information Sources):</i>		<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
HYDROLOGY AND WATER QUALITY— Would the project:					
a)	Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion of siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e)	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f)	Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g)	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h)	Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i)	Inundation of seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

APPROACH TO ANALYSIS

The evaluation of potential impacts to hydrology and water quality during construction and operation of the proposed project is based on qualitative assessments of potential general impacts associated with FIG installation and operation within the project area. The prior setting description provides the basis for determining levels of significance due to the level of sensitivity of the alignment areas in regards to water quality and drainage.

CRITERIA FOR DETERMINING SIGNIFICANCE

Determination of impacts of the proposed project is based on criteria a-j in the environmental checklist above. Additionally, the potential for significant impacts on hydrologic conditions and water quality from construction activities was evaluated based on the intensity and duration of the various disturbances of aquatic and riparian resources.

IMPACT MECHANISMS

Potential construction-related impact mechanisms for water quality include the following:

- Pipeline access points for FIG installation could expose soils to stormwater runoff causing erosion and subsequent sedimentation to local and regional drainages.
- Pipeline access points for FIG installation and associated disturbance of road embankments could induce or increase erosion within drainages. Disturbing roadway ditches, which function as extensions of stream networks, also could result in sediment deposition into local drainages.
- Hazardous materials associated with the proposed project would be limited to those substances associated with construction equipment, such as gasoline and diesel fuels, engine oil, and hydraulic fluids. An accidental spill of these substances could contaminate drainages, soils, wetlands, and other environmentally sensitive areas.

IMPACT ASSESSMENT

- a) ***Would the project violate any water quality standards or waste discharge requirements?***

Impact HYD-1: Project construction could violate water quality standards or waste discharge requirements.

The project would not violate any water quality standards or waste discharge requirements, as dewatering activities would adhere to SCG/SDG&E adopted SWPPP guidelines and Best Management Practices (BMPs) and water certification permit guidelines. Project construction would not require dewatering at the majority of the construction sites, as conduit would be installed into already existing pipelines using the “hot tap” method. This method of conduit installation allows access to the pipeline from the street or right-of-way, which would be located within developed areas. Thus, the amount of ground disturbance would be limited to the size of a

manhole entrance/pit, and would require approximately eight hours to complete. If groundwater accumulates within the excavated entrance pits, all dewatering activities would adhere to SWPPP and water certification permit guidelines, ensuring that the project does not violate water quality standards. Implementation of these guidelines will reduce impacts to water quality to a less-than-significant level.

Mitigation Measure: No mitigation required.

- b) *Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level?***

Impact HYD-2: Dewatering activities would result in short-term, localized alterations in groundwater levels.

The project would not substantially impact groundwater supplies and aquifers as project activities would be limited to the installation of conduit within existing underground pipelines from within the road or right-of-way. However, groundwater levels vary considerably throughout the project area and depths of excavation can also vary. Potentially, in some locations excavation would encounter saturated soil conditions and required dewatering. Dewatering results in the temporary draw-down of the localized water table. Extracted groundwater may be of poor quality and, if discharged to surface waters, could degrade water quality. Groundwater would be discharged or collected and disposed off-site, in accordance with all applicable laws and regulations. Receiving water quality would be maintained through appropriate treatment measures identified in the permit. These may include utilization of settling ponds or screens to reduce suspended sediment loads, or if necessary due to contaminated groundwater, use of on-site treatment systems for contaminant removal prior to discharge. Implementation of these guidelines will reduce impacts to water quality to a less-than-significant level.

Mitigation Measure: No mitigation is required.

- c) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion of siltation on- or off-site?***

The FIG installation will occur primarily within roadways and road rights-of-way and would not alter existing drainage patterns through the alteration of a stream or of upland areas or require any work in sensitive water bodies during construction. No significant impacts to drainages would occur because the proposed project has been designed to avoid this impact.

- d) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?***

The project would result in no impacts to the existing drainage pattern nor will the course of a river or stream be altered by project activities which would result in an increase in flooding on- or off-site. Existing grades would not be altered. Thus, no impacts to flooding due to increased runoff will result from project activities.

- e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

Impact HYD-3: Dewatering activities would contribute runoff water that could exceed the capacity of existing or planned stormwater drainage systems.

Project activities would not require the use of additional water supplies to install the conduit in existing gas pipelines. The ground water would be diverted to a Baker Tank for settlement of fine dirt particles and released either off-site or to designated stormdrains. Although the water released to stormdrains would add to the potential runoff from storms and other sources, project activities will not contribute an amount to exceed the capacity of existing or planned stormwater drainage systems nor provide substantial sources of polluted runoff. Adherence to these guidelines would reduce potential impacts to a less-than-significant level.

Mitigation Measure: No mitigation required.

- f) Would the project substantially degrade water quality?*

Per reasons previously stated in *e)*, project activities would not contribute to the degradation of water quality. There will be no impacts to water quality in result of this project.

- g) Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?*

The project does not propose homes or other habitable structures within the 100-year flood boundary. Project activities would not impact housing as project activities entail only the installation of fiber optic cables. Project activities would not determine the location of housing nor will it result in the movement or displacement of housing to a flood-hazard area. Thus, there will be no impacts to housing in relation to flood-hazard insurance or zoning due to project activities.

- h) Would the project place within a 100-year flood hazard area structures, which would impede or redirect flood flows?*

The project would not place structures within a 100-year area that would impede or redirect flows. Project activities would involve the installation of the conduit underground within existing pipelines. There would be no new external structures built, as construction areas will be restored to pre-construction conditions. Thus, there will be no impacts to flood flows.

i) Would the project cause inundation of seiche, tsunami, or mudflow?

The project area is not subject to seiches, tsunamis, or mudflows, and project activities would not alter the exposure of SCG/SDG&E facilities to these hazards.